WHAT IS CLAIMED IS:

1. A method for enabling error-free delivery of data between a plurality of peer entities, comprising the steps of:

a transmitting peer entity sending a polling request to a receiving peer entity, said polling request requesting a status report; and

responsive to said polling request, said receiving peer entity sending said status report to said transmitting peer entity.

2. The method of Claim 1, wherein said transmitting peer entity sends said polling request when a last PDU in a transmission buffer is transmitted.

3. The method of Claim 1, wherein said transmitting peer entity sends said polling request when a status report has not been received by said transmitting peer entity and a polling timer has timed out.

4. The method of Claim 1, wherein said transmitting peer entity sends said polling request when said transmitting peer entity has transmitted a predefined number of PDUs.

5. The method of Claim 1, wherein said transmitting peer entity sends said polling request when said transmitting peer entity has transmitted a predefined number of SDUs.

6. The method of Claim 1, wherein said transmitting peer entity sends said polling request when said transmitting peer entity has transmitted during a predefined portion of a transmitting window.

7. The method of Claim 1, wherein said transmitting peer entity sends said polling request when said transmitting peer entity has transmitted during a predefined period of time.

8. The method of Claim 1, wherein said transmitting peer entity defers sending said polling request for a predefined period of time.

9. The method of Claim 1, wherein said transmitting peer entity adjusts a transmission window parameter responsive to receiving said status report.

10. The method of Claim 1, wherein said transmitting peer entity retransmits at least one PDU responsive to receiving said status report.

11. The method of Claim 1, wherein said transmitting peer entity retransmits at least one PDU responsive to receiving said status report, if said status report is plausible.

12. The method of Claim 1, wherein said receiving peer entity transmits said status report to said transmitting peer

entity if an estimated PDU counter is not counting, said receiving peer entity not sending said status report to said transmitting peer entity if said estimated PDU counter is counting.

13. The method of Claim 1, wherein said receiving peer entity transmits said status report to said transmitting peer entity if said receiving peer entity detects at least one missing or incorrectly received PDU.

14. The method of Claim 1, wherein said receiving peer entity transmits said status report to said transmitting peer entity when a predefined number of PDUs is received.

15. The method of Claim 1, wherein said receiving peer entity transmits said status report to said transmitting peer entity when a predefined number of SDUs is received.

16. The method of Claim 1, wherein said receiving peer entity transmits said status report to said transmitting peer entity responsive to receipt of a poll.

17. The method of Claim 1, wherein said receiving peer entity transmits said status report to said transmitting peer entity when the transmitting peer entity has transmitted during a predefined portion of a transmitting window.

18. The method of Claim 1, wherein said receiving peer entity sends said status report during a predefined period of time.

19. The method of Claim 1, wherein said receiving peer entity defers sending said status report for a predefined period of time.

20. A system for enabling error-free delivery of data between a plurality of peer entities, comprising:

a transmitting peer entity;

a receiving peer entity; and

a communication link between said transmitting peer entity and said receiving peer entity for communicating data therebetween, said transmitting peer entity including means for sending a polling request to said receiving peer entity, said polling request requesting a status report; and

said receiving peer entity including means for sending said status report to said transmitting peer entity responsive to said polling request.

21. The system of Claim 20, wherein said transmitting peer entity sends said polling request when a last PDU in a transmission buffer is transmitted.

22. The system of Claim 20, wherein said transmitting peer entity sends said polling request when a status report has not been received by said transmitting peer entity and a polling timer has timed out.

23. The system of Claim 20, wherein said transmitting peer entity sends said polling request when said transmitting peer entity has transmitted a predefined number of PDUs.

24. The system of Claim 20, wherein said transmitting peer entity sends said polling request when said transmitting peer entity has transmitted a predefined number of SDUs.

25. The system of Claim 20, wherein said transmitting peer entity sends said polling request when said transmitting peer entity has transmitted during a predefined portion of a transmitting window.

26. The system of Claim 20, wherein said transmitting peer entity sends said polling request when said transmitting peer entity has transmitted during a predefined period of time.

27. The system of Claim 20, wherein said transmitting peer entity defers sending said polling request for a predefined period of time.

28. The system of Claim 20, wherein said transmitting peer entity adjusts a transmission window parameter responsive to receiving said status report.

29. The system of Claim 20, wherein said transmitting peer entity retransmits at least one PDU responsive to receiving said status report.

30. The system of Claim 20, wherein said transmitting peer entity retransmits at least one PDU responsive to receiving said status report, if said status report is plausible.

31. The system of Claim 20, wherein said receiving peer entity transmits said status report to said transmitting peer entity if an estimated PDU counter is not counting, said receiving peer entity not sending said status report to said transmitting peer entity if said estimated PDU counter is counting.

32. The system of Claim 20, wherein said receiving peer entity transmits said status report to said transmitting peer entity if said receiving peer entity detects at least one missing or incorrectly received PDU.

33. The system of Claim 20, wherein said receiving peer entity transmits said status report to said transmitting peer entity when a predefined number of PDUs is received.

34. The system of Claim 20, wherein said receiving peer entity transmits said status report to said transmitting peer entity when a predefined number of SDUs is received.

35. The system of Claim 20, wherein said receiving peer entity transmits said status report to said transmitting peer entity when the transmitting peer entity has transmitted during a predefined portion of a transmitting window.

36. The system of Claim 20, wherein said receiving peer entity sends said status report during a predefined period of time.

37. The system of Claim 20, wherein said receiving peer entity defers sending said status report for a predefined period of time.